

PLANNING AND URBAN DEVELOPMENT IN KUWAIT





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Introduction

Kuwait Municipality - on the occasion of its fiftieth anniversary registers its most important works and achievements, in the form of records and documents which are assembled in a permanent exhibition. It is meant to be a memorial for the efforts and achievements of the previous generations, a challenge and an inspiration for this generation and a guidance to the coming generations.

This book is limited to the technical aspects and progress in planning and urban development in Kuwait, from the start up to now

I would like to take this opportunity to thank gratefully all those who shared work in preparing this book, specially: the Chief Architect, Mr. Hamed Abdul Salam Shuaib, who supervised the preparation of the book; Mr. Hassan Ammas, the engineer who prepared the book; Mrs Fadila Basha, who set out and styled book. I also thank Dr. Abdul Rasoul Al-Mousa from Kuwait University for his sincere efforts and for the valuable information he offered.

God help all of us to work for the welfare of this Nation.

RASHID AL ABDULA AL OTHMAN AL RASHID

Director General of
Kuwait Municipality.

Preface

Planning and urban development in Kuwait, since its formation and up to present time, has passed through two main periods:

- 1 Random Growth (Pre 1952)
- 2 Modern Urbanisation (Post 1952)

The modern urbanisation period has passed through four significant planning stages; in each one a Master Plan was produced which contributed to the development of modern Kuwait. These Master Plans are :

- a The First Master Plan: prepared by Monoprio, Spencely and Macfarlane (1952).
- b The Municipality Development Plan: Assembly of different planning studies for different areas (1967)
- c The 2nd Master Plan: Colin Buchanan and Partners, (1970)
- d First Review of the 2nd Master Plan: Shankland Cox Partnership (1977).

During this period, a variety of projects, in both private and public sectors, were studied which contributed to the urban development of Kuwait. In the course of this book, the reader will find a brief description of these periods and stages, illustrated as much as possible.



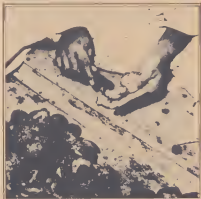
Random Growth

Early Settlement

Previously, the population of Kuwait State was basically concentrated at Kuwait Town which was known as a settlement spot since the 18th century. In principle, that settlement was established due to immigration of people from the Arabian Peninsula followed by immigration from other neighbouring countries.

Economic Activities

The economic activities were closely related to the sea, since it was the main source of living such as fishing, diving for pearls, trading and the connected light industries and handcraft, which included ship building and maintenance, diving equipment manufacture and maintenance, and other simple products which met the requirement of people's needs at that time. On the other hand, there was an active trade dealing with the nomadic tribes coming through the desert from North and South.



Urban Structure of the Town:

The growth of the town took an oval shape, dictated by its location on the peninsula at Ras Ajoza. It was formed of three sectors: the coastal sector, the commercial sector, which extended from Safat Square to the sea, and the residential sector. It was surrounded by a wall extending from the sea on the east to the sea again on the west, the purpose of which was to protect the inhabitants from the attacks of the desert tribes, and it had a number of gates with cemeteries located outside the wall.

Aerial Photograph for Kuwait Town 1950





Urban Form:

The characteristic form of the buildings was that they were very closely knitted together, single storey, with narrow lanes and high walls to protect the pedestrians from the heat of the sun as much as possible and also to provide some privacy to the residents.

Dwelling Unit:

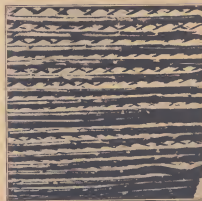
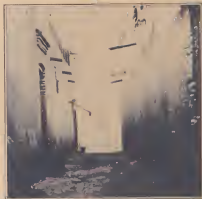
The dwelling unit was built to suit the environmental, social and economic conditions. It consisted of a courtyard around which the other components of the residence were located. The dwelling contained the family area which was possibly formed of a number of households, reflecting the social intimacy. A dwelling might contain more than one courtyard. It depended totally on the natural ventilation by a certain type of window called "Badgeer"

Building Materials:

The prime building materials were sea rocks and mud bricks, together with other complementary materials like timber poles and gypsum plaster.

Population and Town Expansion:

The town grew in the same pattern and style. There were no recorded population statistics, except what has been mentioned in historical references that the population was 10,000 in 1765 and it increased up to 75,000 by 1950.



The Walls of Kuwait.

With the gradual expansion of the town, the inhabitants rebuilt the surrounding wall three times:

First Wall:

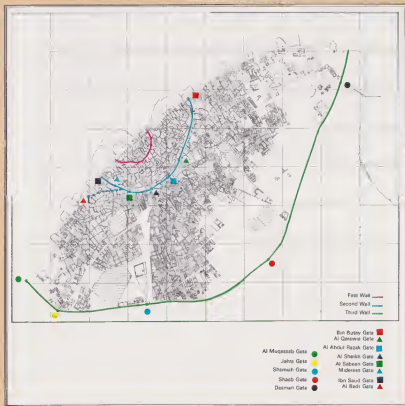
Built in 1760- Its boundaries were known to be from "Naqaat Bin Nassif" in the east to "Naqaat Saud" in the west, with an approximate length of 750 metres, while the town area was about 11.275 hectares.

Second Wall:

Built in 1811 - It consisted of a number of gates in following sequence from east to west: Bin Butay Gate.-Al Qarawia Gate.-Al Abdul Razak Gate.-Al Sheikh Gate.-Al Sabaan Gate.-Miderees Gate.-Ibn Saud Gate.-Al Badr Gate. Later on the wall was extended till "Naqaat Abdul Jalil". Its length was approximately 2300 metres and the town area was about 72.4 hectares.

The Walls of Old Kuwait Town and their Gates.





Third Wall:

Built in 1921. Four gates were located as follows:

Jahara gate - Shamiah Gate - Buraisi Gate - Bunaidai Qar Gate. A fifth gate was added later, which was known as Al Muqssab Gate. Its length was approximately 6400 metres and the town area was about 750 hectares.

Photos of some gates and Old Kuwait Wall.





Foundation of the Municipality:

In 1930 - 1348 Hijra, the Municipality was formed as a simple organization headed by the Municipal Council. It was operating with all local government and Municipal powers which included permits and control of simple and light industries, pearl diving, labour and labour force, commerce, health, road making, street lighting and tree planting, together with their associated planning and land use requirements.



Resolution for Souk Lighting 1352 Hijra - 1933



Resolution for Tree Planting 1352 Hijra - 1933

الحبيب - المصريح اضافة اليه بالصالح الكبرياء
 بعد الذكر و قد ذكره في القار باسند عن مدراء شركة الكبرياء
 بكرة السيد صبايح والذكره معهم عن نور كل من هذه الرئيس
 والامصار المذكورين ليدون اتفاق مع المذكور على اخذ - شرح منهم
 بتراجم عدد هابيه اليه - والقره السراج الاوجه ٣٠ نسخة / فاما ان تكون
 تطعيم او على حساب البيوت .

غرس شجر اللؤلؤ على جانبي شارع دروازه البحر اوراق

Planning.

At that time, no technical staff was available to study and implement plans, but all technical matters concerning planning of the town, such as land use, road making, street lighting and tree planting were based on recommendations from members of the Municipal Council or the administrations or any other prominent people in the country. Those recommendations were discussed in the Municipal Council meetings and if approved, they would proceed to implementation.

The Economic Upheaval

In the late forties, oil started to play a great role in the economic activities in the State of Kuwait. That was reflected as a boom in all other activities. At that time the demand called for a change in the traditional life pattern; a change from random growth to scientific planning.



Resolution for Road improvements 1351 Hijra - 1932



Resolution for Aquisition and Land use. 1351 Hijra - 1932



Resolution for Building Municipality Offices 1351 Hijra - 1932



الكشف على الذم ما كان الذي بوجه سكة بنو ديج في الجهة الغربية
المقبولة من السكة المذكورة وانما سر ما زاد القطع من
لترسطة الطريق باسم السكة المذكورة

تقرر ما يأتي
١ ابتاع قهره الذهب في مخزنه صاحب السواري محمد بن
سنانة عليه الاموال الى ثلاثة دكاكين

في رصد حصة الآن بنية لاسانة بناية البلدية وافذ الاذن في السواري محمد
في المكان السابق
حاج نور الدين



THE FIRST MASTER PLAN - 1952

Objectives:

In April of the year 1951 the Government of the State of Kuwait assigned the consultants Minoporio & Spencely and P.W. Macfarlane, to prepare the first Master Plan for Kuwait. The major aims and objectives were:

1. The provision of a modern road system appropriate to the traffic conditions in Kuwait.
2. The location of suitable zones for public buildings, industry, commerce, schools and other purposes.
3. The choice of zones for new houses and other buildings needed in residential areas, both inside and outside the town wall.
4. The selection of sites for parks, sports ground, school playing fields and other open space.
5. The creation of a beautiful and dignified town centre, particular attention being given to the treatment of the Safat and the siting of public buildings.
6. The planting of trees and shrubs along the principal roads and at other important points in the town.
7. The provision of improved main roads linking Kuwait with the adjoining towns and villages.



The Plan.

The plan precisely expressed the aims and objectives set for it. It covered Kuwait Town (inside the wall 755 hec.) and extended outside the wall to the neighbouring areas up to the 3rd ring road (about 1450 hec.) It covered all uses namely residential, commercial, industrial offices, public services, utilities and recreational uses - applying for the first time modern planning standards.

Planning Concept:

The Master Plan introduced the concept for the presently operating ring and radial road system. It also introduced the present neighbourhood pattern which proved to be very successful. It separated the town from the neighbourhoods by a green belt as a buffer zone. It created a balance in traffic movement by locating new attraction areas, other than the town such as the Shuwaikh Industrial Area, the Hospitals area and the New Airport.



Old Development

Boundaries

Residential

Industrial

Schools

Hospitals

Utilities

Tree Planting

Kuwait Master Plan 1952

The Town.

Being the official commercial major centre, the plan paid a considerable attention to the infra-structure which was previously deficient in the town. The plan allocated a commercial area around Safat Square, government offices on both side of Abdalla-as-Salem street and an area for light industries. These three uses covered 12 % of the total area of the town, residential use 45 % and 34 % was for the provision of roads, open space, public gardens and playing fields.

الكويت
KUWAIT



A development plan for His Highness
Shaikh Abdullah As-Salem As-Sabah

Recommendations and Implementation Programme.

In order to proceed forward with the plan and to bring it to reality certain tasks were suggested by the consultant which are summarised in the following:

- * Build up of technical staff.
- * Set up a town planning committee.
- * Prepare a time-table for development.
- * Introduce building bylaws.
- * Place orders for building materials and equipment.
- * Survey lines of new roads and estimate number of houses to be demolished.
- * Prepare layouts of housing areas to replace houses demolished.
- * Prepare layouts for service industry area.
- * Survey warehouse area and prepare plans for its redevelopment.
- * Select sites for the most important buildings, including hotels, and prepare working drawings.

Municipal Council Meeting Headed by
Sheikh Fahad Al Salem 1952



Implementation and Development of the Plan:

As result of the recommendations, the following steps were taken.

1. Technical teams were formed in the Department of Public works for planning, roads, building design and surveys.
2. The formation of the Development Board, headed by The Amir, which acted as the highest authority for planning and construction.

Shortly after that, a major change in urban development started to take place in Kuwait. Construction started in roads, utilities, public services new houses and many other urban projects. It was that Master Plan which established the base for the urban planning in Kuwait; it was considered as a turning point in the process of urban development. Its success had been emphasised by the later Master Plans which followed the same sequence inspite of the absence of statistical data at the time when the first Master Plan was proposed and the availability of better data for the later Master Plans.





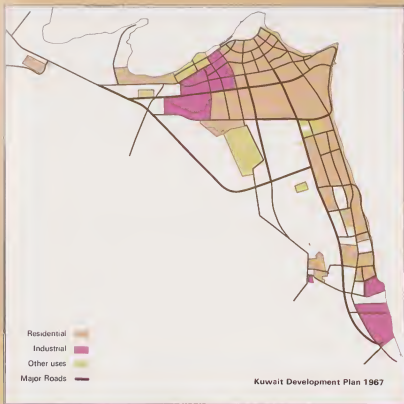
b THE MUNICIPALITY DEVELOPMENT PLAN 1967

Background:

As a result of the economic upheaval, the population of Kuwait was rapidly increasing due to natural growth and immigration. The population was 206473 in 1957, 321621 in 1961 and 467339 in 1965. Consequently, the rate of development was increasing rapidly, and the first Master Plan (1952) reached its saturation level. That situation dictated the demand for more planned areas.

The Plan:

At that period (1952-1967) the Planning Department, which was part of the Ministry of Public Works till 1961, played an important role. Many residential, commercial and industrial areas were planned. In 1967 an assembly plan for these areas, including the First Master Plan (1952) was prepared which came to be known as the Municipality Development Plan. However, there were no demographic or detailed traffic studies involved in the preparation of this plan.



Main Achievements:

The main achievements were the planning of 40 residential areas, with other commercial and industrial areas. There was also the provision of the 5th and 6th ring roads as well as the extension of the main radial roads. Considerable attention was paid to the coastal strip, and many villages were planned. Shuaiba Industrial Area was planned and developed for heavy industries. In conclusion, the Municipality Plan played an important role in development guidance in Kuwait.



THE SECOND MASTER PLAN 1970

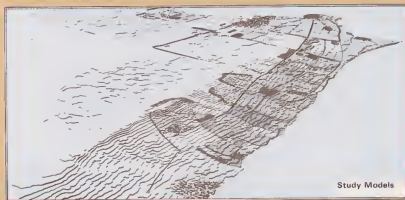
Preliminary steps:

Different stages of planning and development in the country, up to the year 1967, have been explained. It revealed that a considerable effort was put in order to cope with the fast rate of development. In the early sixties, the Municipality asked for the advice of the U.N. In that respect Professor Jacob Taisie payed several visits to Kuwait during which he gave suggestions and technical advice.

As a response to the request of Kuwait Government asking for further advice from the U.N., a committee of three advisors was formed, namely, Professor Jacob Taisie, Dr. Mahmoud Riyad and Dr. Omar Azzam. This committee submitted a report to the Municipal Council suggesting the appointment of an International Consultant to set out the base for comprehensive Master Planning and development in the State up to the end of the Century. By the end of 1968, the Municipality signed an agreement with the British Consultant Colin Buchanan and Partners to carry out this study. A counterpart team was formed from Municipality technical staff, for the follow up of the study. Also an Advisory Group was formed from three International Advisors, Sir Leslie Martin, Dr. Omar Azzam and Professor Franco Albini to advise and comment on various stages of the Study.

Contents of Study:

- 1 - Long Term Strategy
- 2 - The National Physical Plan
- 3 - Short Term Master Plan for Urban Areas.
- 4 - The Plan for Kuwait Town.



Study Models

1- LONG TERM STRATEGY

The Forecasts:

Population:

The strategy was based on a realistic population target level of two million, rather than on a certain period of time. On this basis, the plan was prepared to meet development requirements. It was calculated that at the earliest, assuming no change in the rate of natural increase and with net immigration at approximately the rate between 1965-69 (i.e. 3 %), the two million total would be reached by about 1985 or, if immigration ceased altogether, by about 1997. The first case was called the fast growth and the latter as the slow growth.

Growth of Employment:-

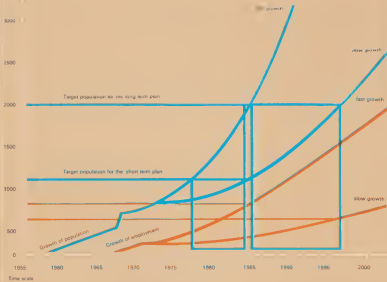
It was estimated that in the fast growth case, i.e. when the two million is reached by 1985, some 800,000 jobs would then be needed in the whole of Kuwait. If, at the other extreme, in the case of slow growth it takes until 1997 to reach the same level, then about 625,000 jobs would be required.

It was decided to use the higher estimate of 800,000 jobs to determine future long-term land use requirements.



Population = 1000

Employment = 1000



Long Term Plan Target Population

The Growth of Road Traffic.

The rate of increase in car ownership in Kuwait was running at about 10% a year which led to the conclusion that the saturation level would be reached by about the turn of the century. A conclusion was made that the future car ownership level of 1.8 cars per family, which represented 0.33 cars per capita, to be the best estimate.

Future Demands for Water and Power:

By the time the population reaches two million, the demand for water could rise to a peak of 800 million gallons a day (mgd). Firm restrictions on the use of water were thought to be inevitable, in the long-term. It was also estimated that maximum demand for power in the 1990s, for a population of two million, would be of the order of 8,000 MW.

Housing:

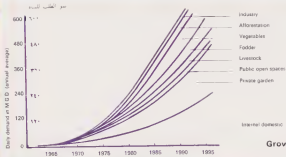
The total population that could be accommodated in the new areas would be some 1,222,000. In addition, a total resident population of 853,000 could live in the areas already built up or committed for residential use, bringing up the overall total to two million.

Industry:

In the preferred strategy, eleven new light industrial areas were proposed: three to the west of Kuwait; three in the eastern coastal strip and five in the satellite. The average size of each area was about 200 hectares. Heavy industry was proposed to continue to be concentrated in Shuaiba. As corollary to those proposals, the further growth of employment in Shuwaikh would have been curtailed.



Growth in Car Ownership



Growth of Water Demand

Transport

The preferred plan showed the primary roads which would provide a direct link between the most dense concentrations of employment and residential development.

Phasing:

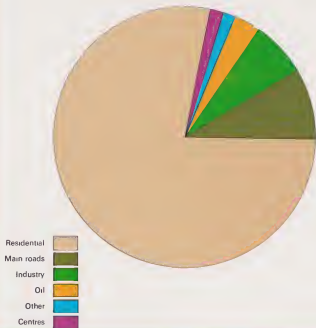
The Plan was divided into four stages: the first and the second stages were considered as the period during which the total population would grow by 225,000 and 300,000 respectively. Development would mainly concentrate in the coastal corridor. This would include establishment of a major centre near Fintas by the end of second stage. Sulaibikhat and Jahra would be expanded during the first to the third stages, with industrial development in the case of Jahra. The establishment of the major centre in a satellite, to the south of Ahmadi, would take place in the fourth stage.

Land Required for Urban Growth:

Altogether about 20,000 hectare of land would have to be found in the long term urban development, in addition to the land already built up or committed.

Land Required for Urban Growth





2 The National Physical Plan.

Land for Urban Growth:

Almost all the land, which was identified as possessing the best potential for development to accommodate urban growth, was studied.

It was divided into three phases:

The First Phase: The coastal strip between Salmiya and Ahmadi, and at Sulaibikhat and Jahra - to accommodate an overall population increase of 525,000.

The Second Phase: The building of a new town to the south of Ahmadi and the continued development of Sulaibikhat and Jahra - to accommodate the further growth of population to a total of two million.

The Third Phase: The possible land for urbanisation beyond the period of the Long Term Strategy which would accommodate about another million people if required.

Recreation Areas:

The Plan proposed Failaka Island as suitable recreational area. It suggested the building of a holiday village, and a national park, together with the conservation of the traditional buildings of the old village.

It was also proposed to keep the whole area of the northern coast as a national park. Recreational activities were proposed to take place in Doha, Kathama and other areas to include camping and boating facilities, beside other similar activities.

For the southern coastline, the plan proposed immediate action to be taken for the removal of illegal shacks and to restore the land all along the coastline, south of Mina Abdulla, as public beaches.

Transport and Communications

The Plan assessed the capacity of the ports, airport and the international highways in the light of the estimated future demands. It also suggested a future railway link of Kuwait to Iraq and Saudi Arabia.

Natural Resources

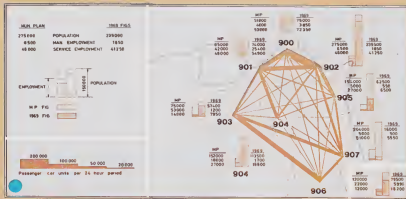
The National Physical Plan reserved some area for the exploitation of natural resources: oil, underground water and minerals (limestone, sand and gravel). Areas were also reserved at Sulaihiya, Abdaly and on Failaka Island primarily for the development of agriculture. Locations were also proposed for forest planting and fishing harbours.



Master Plan - Review of Coastal Recreational Areas.



Population, Employment and Generated Movement



3 - Short Term Master Plan for Urban Areas

Population:

The Short Term Master Plan covered the period during which the total population would reach 1,258,000. It expected that this level could be reached in 8 years, in the case of fast growth, or it might extend to 15 years, in the case of slow growth.

Areas for Urban Development:

The areas for suitable development in the Short Term Master Plan extend from Kuwait City southwards to Fahaheel (coastal strip) and westwards to Jahra.

Housing:

The Plan strongly recommended the removal of the shanty housing and the settlement of the Bedouin. It recommended three types of residential densities for the rest of the population as follows:

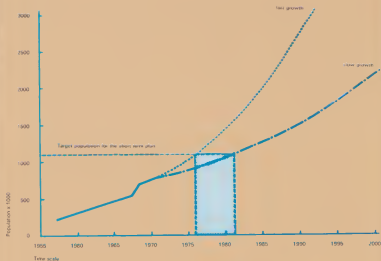
Low density	50 persons/hect.
Medium density	120 persons/hect.
High density	265 persons/hect.

Centres:

In the Master Plan five kinds of centres were proposed:

First: Kuwait Town as a dominant centre and State capital.

Second: The development of a second major centre to ease pressure on Kuwait Town, at a location west of Fintas, to serve areas south of sixth Ring Road i.e. catchment population of about 500,000.



Target Population for Short Term Plan

- Third:** Seven third order district centres at Hawalli, Salimiya, Farawaniya, Sulaibikhat, Fahaheel, Jahra and Messila to serve a population of 100,000 each.
- Fourth:** Neighbourhood Centres, which would render the same services as the existing ones in residential neighbourhoods.
- Fifth:** The development of local shops within the residential areas.

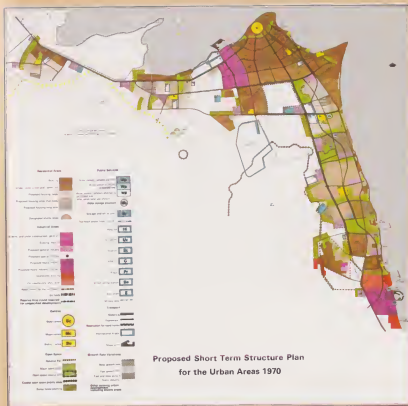
Industry:

In the Plan, attention was paid to industrial employment to be distributed fairly evenly in relation to residential areas so that the volume of long journeys to work would be kept to a minimum. Each industrial area covered 100-150 hectares and was capable of accommodating some 5,000 jobs. Such a policy was a radical departure from the previously prevailing pattern of industry in Kuwait, in which over 50 % of all industrial land was in one location. "Special industrial areas" were designated, where noxious industries could be located with least harm to the residential environment.

Transport:

The major road system in the Master Plan consisted of motorways and express ways forming a grid of approximately 3km x 2km, with grade-separated junctions.

The Master Plan proposed a bus system comprising express buses for longer journeys; local and mini buses for medium and short distances. The Plan also incorporated a route of a rapid transit system which would operate between Kuwait Town and the southern end of the coastal strip. It expected that to be needed towards the end of the short-term period, and recommended an economic feasibility study.



4- The Master Plan For Kuwait Town

Employment:

Kuwait Town retained its dominance as the State capital and the principal administrative and commercial centre. After careful analysis, the Master Plan decided to provide for a total of 95,000 jobs in the Town.

Population:

In order to create a balance between the resident population and the jobs in the Town, a figure of 80,000 was suggested, which was about the same number of resident population at the time of the study.

Housing:

Although the size of the resident population of the town was not changed, the Plan assumed certain radical changes in the composition. To offset the increase of 9,000 Kuwaiti residents, the plan assumed there would be some 3,000 fewer non-Kuwaitis living in Kuwait Town, and 8,000 fewer labourers living in group accommodation. Finally the Plan provided for the accommodation of 2,000 students who would be attending the university proposed in Sharq.

Expansion of the Core:

This area contained specialised government and commercial services for the whole of the State. Its employment was expected to rise by 20,000 jobs during the Short-Term Period, which would result in an inevitable expansion in the core.

With the exception of the green belt, development and growth in the core was suggested to be accommodated in three main areas. The first was along Abdullah Al-Salim street and stretching south; which was



supposed to contain most of the State Centre activities, with some 12,000 jobs, about 10,000 of which would be in new buildings. The second and more concentrated area of core activities was suggested to be located between Abdullah Al-Mubarak and Mubarak Al-Kabeer streets. The third area was located in Sharq, focussed on the crossing of Jaber Al-Mubarak and Ahmed Al-Jaber streets, where total employment was expected to grow up to around 5,300 in the Short-Term.

Public Open Space:

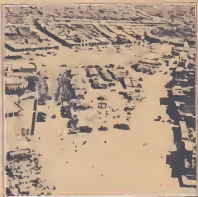
Some thirty hectares occupied mostly by old cemeteries were recommended to be used as parks and playing fields.

Road Network:

The Plan proposed a system of road hierarchy which extended from primary urban motorways to secondary and other minor roads. The plan also suggested the reduction of car traffic from certain environmentally sensitive areas to give room to pedestrians and public transport, together with service traffic. A comprehensive public transport system was proposed for the Town which included express buses, local and mini-buses, while the rapid transit would link the Town with the south.

Parking:

The Plan estimated that by 1980 the demand for parking spaces in the Town would be 65,000. It suggested the provision to accommodate 48,000 cars in multi-storey garages. It also proposed to use the in Town parking facilities for short-stay parkers, while long-stay demand could be accommodated on the periphery of the Town, where people could transfer to a shuttle system of public transport.



Safat Square

a THE FIRST REVIEW OF THE SECOND MASTER PLAN 1977.

Background:

In implementing the second Master Plan (1970) - which has been previously explained, some changes took place: unexpected population growth and the change in national income and social life occurred in the period 1970-77. Another change was the amendment of the Building Code, and a considerable time lapse had passed after which a review had been recommended.

For these reasons, the Municipality appointed the British Consultant, Shankland Cox Partnership, in 1977, to undertake the first review which included the following:

- 1) Metropolitan Structure Plan.
- 2) City Centre Structure Plan.
- 3) National Physical Plan.

1-METROPOLITAN STRUCTURE PLAN

Population:

The population of Kuwait is projected to grow from 1 million in 1975 to 2.76 million in the year 2000. The projection is based on Kuwaiti employment requirements. Immigration levels are expected to increase up to 1980 and then decline gradually until the end of the century. In 2000, Kuwaitis should form 52 per cent of the population.



Fintas Centre

Employment:

An additional 487,000 jobs will be required to meet the needs of the population between 1975 and 2000. Manufacturing is forecasted to increase its share of the labour force from 8 per cent to 20 cent. Employment in all other sectors will decline proportionately, with construction showing the greatest decline and services one of the most modest. Over the same period, Kuwaiti involvement in the labour force is expected to increase from 30 per cent to 40 per cent.

Housing:

To meet the housing needs of new households, the removal of all obsolete dwellings and the relief of overcrowding between 1975 and 2000 would require an average annual house building programme of about 17,000. A more realistic rate of the current level of building rate would be 16,000 housing units per year, but this would mean accepting the existing level of overcrowding in non-Kuwaiti households until the turn of the century. Achievement of this building rate will require an average increase in output of 6.25 per cent annum.

Capacity and Residential Densities:

The ultimate population capacity of the Metropolitan Structure Plan is estimated at 1.668 million with the removal of all obsolete dwellings and the elimination of all overcrowding. With the acceptance of the continuation of part of the current absolute level of overcrowding of non-Kuwaiti housing, then the capacity in the year 2000 will be 1.76 million, resulting in the need to accommodate nearly 1 million people outside the metropolitan area.

Transportation:

Car ownership is expected to grow rapidly and to reach effective saturation levels towards the turn of the century. The existing and planned road network is capable of absorbing considerable additional traffic but could become excessively overloaded unless land use distribution and densities are related to its capacity.

To provide for a more even distribution of traffic, residential densities will be restricted to the south and west of the Fifth Ring Road and employment areas and shopping service centres will be distributed throughout the metropolitan area.

The highway improvement programme to 1985 will include the following projects: The Fahaheel Road will be upgraded to expressway standard and the Assafar Motorway extended southwards to Mina Abdulla and the Saudi border; The Sixth Ring Road will be continued to Jahra parallel with the upgraded Jahra motorway. Also, a new outer by-pass will be constructed west of the airport linking Jahra and Shuaiba.

Following the decision to abandon the proposed rapid transit line through the southern corridor, the principal public transport services will be provided by express and local bus services. The planning of all major residential areas will be required to provide efficient routes for buses.



Mirqab Transportation Centre



Proposed Mono-rail in Sharq.





Industrial:

The growth in industrial and associated employment by the year 2000 will require about 2000 hectares of land in addition to that still available in existing employment areas.

The additional requirements are allocated to a number of small sites of from 60 to 200 hectares related to residential areas together with the southern portion of Phase II of the Shuaiba industrial area.

The northern portion of Phase II of Shuaiba will be kept in reserve and will only be released for industrial purposes when all other sites have been used.

Distribution of Industrial Areas.





Shopping and Service Centres

With the growing population and increasing personal income, the demand for retail floorspace by 2000 is projected to grow to 2.971 million square metres of which 2.046 million is allocated to the metropolitan area.

The principles for the distribution of centres contained in the original structure plan (1970) are affirmed.

The main relief to pressures and congestion on the city centre will be provided by the development of a major centre at Fintas to include not only shopping functions but a large measure of service employment in Government offices. This project will be given the highest priority.

Public Utilities:

Total demands for power and water are likely to reach 11,500 MW and 3,650 million litres per day respectively by the year 2000.

Four new water power complexes will be needed to meet these requirements in addition to the current plans of the MEW.

Two of these installations will be associated with new growth areas.



2- City Centre Structure Plan

Current Development Trend 1977:

Virtually all sites within the city centre are the subject of building projects or development proposals and plans. If all these proposals are implemented they would result in an employment level of 182,000 and a resident population of 117,000 compared to the final recommendations for the Second Master Plan (1970) of 95,000 and 80,000 respectively. The economic viability of the new level of development is questioned and, if achieved, it would create severe traffic and environmental problems.

Recommended Policy:

The employment target for the City Centre is set at a maximum of 140,000 jobs with a resident population of about 117,000, requiring an adjustment to some of the current commitments. Commercial uses are to be consolidated around the central business district in the area of the Souk and Fahad Al Salem Street with a subsidiary centre at Al-Baloush in the Sharq area.

Housing:

There is a critical need in the centre for the development of housing for limited income groups, principally for non-Kuwaitis and for bachelor housing. The Government will have to take the initiative to meet these needs.

Parks and Open Space:

The green belt will encircle the city centre, extending continuously from the Kuwait Towers to Jahra gate in the west containing major recreational facilities. Within the centre, major open spaces will be located at an extended Safat Park, the Salihiya cemetery, Sief Square, Al-Baloush and by extensive landscaping around the main public



Building complexes at Quibla and Abdulla Al Salem Street. These will be supplemented by smaller squares and spaces related to the main pedestrian network which will extend throughout the centre.

Conservation Areas:

The Behbehani Compound, the American Mission, the traditional Souk and part of the Sharq sea frontage are defined as conservation areas. As far as possible, the old museums at Dasman and Quibla, the Al Ghanim, Dasman and Naif Palaces and all the mosques will be preserved as buildings of historic and architectural importance

Roads:

The existing road pattern will provide the framework for access to the centre, supplemented by an urban expressway formed by extending the First Ring Road from Jahra Gate and Dasman roundabout around the north of the Souk, parallel with Arab Gulf Street. Within the centre, this expressway will be partly depressed and partly at grade

Parking:

Some 35,000 and 63,000 parking spaces for residential and non-residential use respectively will be provided, requiring eventually the application of some form of restraint on traffic movements

Public Transport:

A comprehensive public bus transport system needs to be developed, based on express services originating from other parts of Kuwait together with local city centre services, operating out of two bus stations, one at Jahra Gate and the other at Mirqab. The possibility of the provision of an automated public transit system will be investigated



Road network

0 250 500 1000 Meters

Grade separated junction



Urban expressway



Primary distributor



Secondary distributor



3- National Physical Planning

Introduction:

With the exception of the location of the new growth areas and a number of minor variations, the basic principles established in the original National Physical Plan (1970) remain unchanged

Population Overspill:

The projection of population when related to the capacity of the Metropolitan Structure Plan reveals the need to accommodate about 1 million people by the year 2000 in new growth areas outside the metropolitan area. A number of forms and locations for accommodating this growth have been identified and evaluated.

New Towns:

The new growth areas will take the form of new towns each of about half a million population one to the north at Ras Subiya and the other in the south near Al Khiran. The towns will be planned to be virtually self-sufficient in employment and services and will be designed to a high environmental standard

Both towns are programmed to meet the population targets referred to earlier 70,000 by 1985, 270,000 by 1990 and 987,000 by 2000.

NATIONAL PHYSICAL PLANNING STRATEGY MAP 1977



Natural Resources.

The extraction of minerals from the Zor escarpment and Khiran will be strictly controlled and the opening of new gravel pits within existing or planned urban areas will not be allowed.

Land suitable for agricultural development will be protected and only uses which are ancillary to or necessary for that development will be permitted.



Oil



Other Natural Resources.





KUWAIT MUNICIPALITY

